

What is claimed is

1. A document feeder to be disposed above a platen of an image reading apparatus, comprising:

5 a sheet feed stacker disposed above the platen for stacking an original;

transporting means disposed above the platen adjacent to the sheet feed stacker for transporting the original from the sheet feed stacker to a predetermined position on the platen,

10 a sheet discharge stacker disposed above the sheet feed stacker for storing the original transported from the transporting means,

15 a transporting guide disposed between the sheet feed stacker and the transporting means, and between the sheet discharge stacker and the transporting means for guiding the original, and

drive means connected to the transporting means for driving the same and capable of rotating in forward and reverse directions.

20 2. A document feeder according to claim 1, wherein said transporting means includes vacuum means for sucking the original, a pair of pulleys, an endless belt placed between the pulleys, and a tension roller for restricting a distance between the endless belt and the platen, said transporting guide being  
25 arranged for guiding the original to a part of the endless belt located between one of the pulleys and the tension roller.

3. A document feeder according to claim 2, wherein said transporting guide has a forward end portion composed of an

elastic film member contacting the platen located close to a chamber of the vacuum means.

4. A document feeder according to claim 1, further comprising  
5 feeder means disposed adjacent to the sheet feed stacker for feeding the original from the sheet feed stacker to the transporting means, and interconnecting means interconnecting the sheet feed stacker and the sheet discharge stacker, said sheet discharge stacker being pivoted to enlarge a rear space in  
10 a sheet feeding direction between the sheet feed stacker and the sheet discharge stacker so that the interconnecting means moves a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge stacker is rotated.

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5. A document feeder according to claim 4, wherein said feeder means includes a feed roller for drawing an uppermost original on the sheet feed stacker and a rotating member, said sheet feed stacker having urging means for pressing the forward end thereof  
20 against the rotating member, said transporting means having a transport belt for transporting the original and vacuum means for sucking the sheet toward the transport belt, said sheet discharge stacker being supported on a frame rotatably around a forward end thereof in a sheet feeding direction, said sheet  
25 feed stacker being supported on the frame rotatably around a rear end thereof in the sheet feeding direction, said interconnecting means having a cam member provided between the sheet discharge stacker and the sheet feed stacker.

6. A document feeder according to claim 5, wherein said cam member includes a rotational cam with a rotational shaft for moving the sheet feed stacker away from the feed roller when the sheet discharge stacker is rotated by a predetermined angle.

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7. A document feeder to be disposed above a platen of an image reading apparatus, comprising:

a sheet feed stacker disposed above the platen for stacking an original,

10 transporting means disposed adjacent to the sheet feed stacker and located substantially horizontally along the platen together with the sheet feed stacker for transporting the original from the sheet feed stacker to a predetermined position on the platen,

15 a sheet discharge stacker disposed above the sheet feed stacker for storing the original transported by the transporting means, and

a light-shielding cover member disposed under the sheet feed stacker for covering the platen.

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8. A document feeder according to claim 7, further comprising drive means connected to the transporting means for driving the same and capable of rotating in forward and reverse directions, and an original stopper disposed at a side of the transporting  
25 means opposite to the sheet feed stacker for stopping the original on the platen.

9. A document feeder according to claim 7, further comprising a device frame for covering an entire portion of the platen, and a  
30 transporting case frame attached to the device frame for

covering a part of the platen and supporting the transporting means, said light-shielding cover member being attached to the device frame at a portion other than a portion where the transporting means is disposed.

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10. A document feeder according to claim 9, further comprising vacuum means attached to the transporting case frame for sucking the original to the transporting means.

10 11. A document feeder according to claim 7, further comprising feeder means disposed adjacent to the sheet feed stacker for feeding the original from the sheet feed stacker to the transporting means, and interconnecting means interconnecting the sheet feed stacker and the sheet discharge stacker, said  
15 sheet discharge stacker being pivoted to enlarge a rear space in a sheet feeding direction between the sheet feed stacker and the sheet discharge stacker so that the interconnecting means moves a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge  
20 stacker is rotated.

12. A document feeder according to claim 11, wherein said feeder means includes a feed roller for drawing out an uppermost original on the sheet feed stacker and a rotating member, said  
25 sheet feed stacker having urging means for pressing the forward end thereof against the rotating member, said transporting means having a transport belt for transporting the original and vacuum means for sucking the sheet toward the transport belt, said sheet discharge stacker being supported on a frame rotatably  
30 around a forward end thereof in the sheet feeding direction,

said sheet feed stacker being supported on the frame rotatably around a rear end thereof in the sheet feeding direction, said interconnecting means having a cam member provided between the sheet discharge stacker and the sheet feed stacker.

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13. A document feeder according to claim 12, wherein said cam member includes a rotational cam with a rotational shaft for moving the sheet feed stacker away from the feed roller when the sheet discharge stacker is rotated by a predetermined angle.

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14. An image reading apparatus comprising:

a platen for placing an original thereon,

photoelectric converting means disposed adjacent to the platen for reading the original on the platen,

15 transporting means disposed along the platen for transporting the original to a predetermined position on the platen,

a sheet feed stacker disposed adjacent to the transporting means along the platen for stacking the original,

20 a sheet discharge stacker disposed above the sheet feed stacker for storing the original transported from the transporting means, and

drive means connected to the transporting means for driving the same and capable of rotating in forward and reverse  
25 directions.

15. An image reading apparatus according to claim 14, further comprising a device frame for covering an entire portion of the platen, a transporting case frame attached to the device frame  
30 for covering a part of the platen and supporting the

transporting means, and a light-shielding cover member attached to the device frame at a portion other than a portion where the transporting means is attached for blocking light from the platen, said sheet feed stacker being disposed above the light-shielding cover member, said sheet discharge stacker being  
5 disposed above the sheet feed stacker.

16. An image reading apparatus according to claim 14, further comprising feeder means disposed adjacent to the sheet feed  
10 stacker for feeding the original from the sheet feed stacker to the transporting means, and interconnecting means interconnecting the sheet feed stacker and the sheet discharge stacker, said sheet discharge stacker being pivoted to enlarge a rear space in a sheet feeding direction between the sheet feed  
15 stacker and the sheet discharge stacker so that the interconnecting means moves a forward end of the sheet feed stacker in the sheet feeding direction away from the feeder means when the sheet discharge stacker is rotated.

20 17. An image reading apparatus according to claim 16, wherein said feeder means includes a feed roller for drawing out an uppermost original on the sheet feed stacker and a rotating member, and said sheet feed stacker includes urging means for pressing the forward end thereof against the rotating member.

25 18. An image reading apparatus according to claim 16, wherein said transporting means includes an endless belt placed along the platen for transferring the sheet and vacuum means for sucking the sheet toward the endless belt.

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